

# International Workshop on Materials and Devices for Post-CMOS Computing

## Technical Program

Day-1: 21/10/2024 (Monday)

Time	Program Details
8:30 AM - 9:30 AM	Registration
9:30 AM - 9:45 AM	Welcome address by Amitava Patra, Director, INST and Judith L. Driscoll, University of Cambridge
Session - 1	Chair: Judith L. Driscoll
9:45 AM - 10:20 AM	Arunava Gupta, UCSD, USA <i>Chemical Vapor Deposition of Multifunctional Complex Oxides</i>
10:20 AM - 10:55 AM	Adnan Mehonic, UCL London <i>SiO<sub>x</sub> RRAM - from Memory to Compute</i>
10:55 AM - 11:15 AM	High Tea
Session - 2	Chair: K. G. Suresh
11:15 AM - 11:50 AM	Kalobaran Maiti, TIFR Mumbai <i>Anomalies in the Dirac bands in correlated systems</i>
11:50 AM - 12:25 PM	P. S. Anil Kumar, IISc Bengaluru <i>Induced p-wave Superconductivity in a Topological Insulator</i>
12:25 PM - 1:00 PM	Chiranjib Mitra, IISER Kolkata <i>Topological Photo-current and magnetization control in 3D Topological Insulators</i>
1:00 PM - 2:30 PM	Lunch
Session - 3	Chair: Anjan Barman

<b>2:30 PM – 3:05 PM</b>	<b>Judith L. Driscoll, University of Cambridge</b> <i>Oxide Thin Films for Neuromorphic Hardware</i>
<b>3:05 PM - 3:40 PM</b>	<b>Neeraj Khare, IIT Delhi</b> <i>Resistive Switching Devices</i>
<b>3:40 PM - 4:05 PM</b>	<b>Shinbuhm Lee, DGIST South Korea</b> <i>Neuromorphic devices using iono-physical coupling effects</i>
<b>4:05 PM - 4:20 PM</b>	<b>High Tea</b>
<b>4:20 PM - 7:15 PM</b>	<b>Poster Session</b>
<b>7:30 PM</b>	<b>Gala Dinner</b>

**DAY-2: 22/10/2024 (Tuesday)**

<b>Time</b>	<b>Program Details</b>
<b>Session - 4</b>	<b>Chair: Kalobaran Maiti</b>
<b>10:00 AM - 10:35 AM</b>	<b>Umesh Waghmare, JNCASR Bengaluru</b> <i>Sensing Vibrations using Quantum Geometry of Electrons</i>
<b>10:35 AM - 11:10 AM</b>	<b>K G Suresh, IIT Bombay</b> <i>Electrical and thermal transport studies in some topological and quantum materials</i>
<b>11:10 AM - 11:30 AM</b>	<b>High Tea</b>
<b>Session - 5</b>	<b>Chair: P S Anil Kumar</b>
<b>11:30 AM - 12:05 AM</b>	<b>Anjan Barman, S N Bose National Center for Basic Sciences, Kolkata</b> <i>Role of Spin Texture on Magnetization Dynamics in Magnetic Thin Films and Nanostructures</i>
<b>12:05 AM - 12:40 PM</b>	<b>Bhavtosh Bansal, IISER Kolkata</b> <i>Hierarchical non-neuromorphic memory in athermal martensites</i>
<b>12:40 PM - 1:10 PM</b>	<b>Jan-Sik lee, POSTECH South Korea</b> <i>Hafnia-based Ferroelectric Materials for Memory and Neuromorphic Device Applications</i>

<b>1:10 PM - 2:30 PM</b>	<b>Lunch</b>
<b>Session - 6</b>	<b>Chair: Umesh Waghmare</b>
<b>2:30 PM - 3:05 PM</b>	<b>Tanusri Saha Dasgupta, S N Bose National Center for Basic sciences, Kolkata</b> <i>Computer Engineered 2D Materials: Host for Unconventional Properties</i>
<b>3:05 PM - 3:40 PM</b>	<b>S. N. Piramanayagam, NTU Singapore</b> <i>Brain-Inspired Computing Using Magnetic Domain Wall Devices</i>
<b>3:40 PM - 4:15 PM</b>	<b>Bhagwati Prasad, IISc Bengaluru</b> <i>Beyond CMOS computing: Spintronics, Ferroelectrics and Magnetoelectrics</i>
<b>4:15 PM - 4:50 PM</b>	<b>Tuhin Maity, IISER Trivandrum</b> <i>Crossing the limits by interface engineering in nano-scale multiferroics</i>
<b>4:50 PM - 5:00 PM</b>	<b>Poster Awards and Vote of Thanks</b>
<b>5:00 PM - 5:30 PM</b>	<b>High Tea and Interaction</b>
<b>7:30 PM</b>	<b>Dinner</b>